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Beautiful Arrangement

i/p → n = 2 → [1, 2].

those permutation are considered beautiful Arrangement, when every index (start from 1) $1 \le i \le n$

should obey either one rule :-

1.) perm[i] is divisible i
2.) i is div. by perm[i].

return total no. of such Beaut. Arrang (B.A)

Ex :- n=3 → [1,2,3]

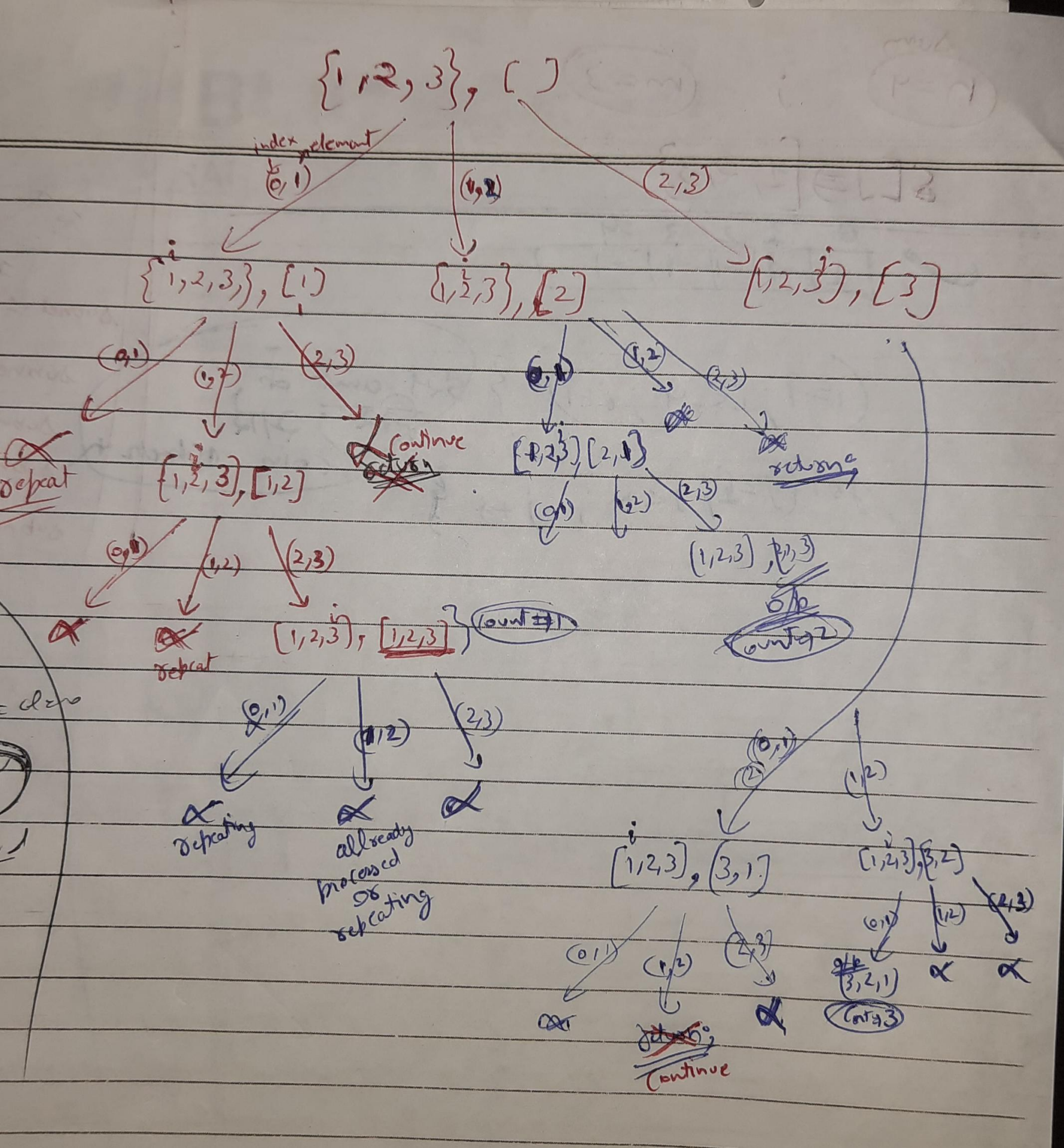
permutations

[1,2,3] → ✓ (B.A)
[1,3,2] → ✗
[2,1,3] → ✓ (B.A)
[2,3,1] → ✗
[3,1,2] → ✗
[3,2,1] → ✓ (B.A)

6 permutation

Three are 3 B.A ⇒ [1,2,3], [2,1,3], [3,2,1]

Ans


{1,2,3}, [ ]
index, element
(0,1)
(1,2)
(2,3)
{1,2,3}, [1]
{1,2,3}, [2]
{1,2,3}, [3]
repeat
continue
{1,2,3}, [1,2]
{1,2,3}, [2,1]
return
{1,2,3}, [1,2,3]
count=1
count=2
repeating
already processed or repeating
{1,2,3}, [3,1]
{1,2,3}, [3,2]
(3,2,1)
count=3
continue